GIANT HATTHORNS

Several hawthorn trees, Orateagus spo., standing in the. Oramberry Glades of Pocahontas county, a short distance from the State Road Route 24, are of exceptional size and bear many indications of great age.

Some comparisons have been made of these trees with others of the same species in West Virginia and other states. The comparisons indicate that the hawthorns of the Cranberry Glades are unusually large, especially one of the trees which is larger than others of the group.

Attention tras not called to the unusual size of the tree until very recently. The big hewthorns were probably first described by Dr. P. D. Strausbaugh, Professor of Botany, Test Vircinia University, who has visited the region a number of times. His attention was first called to the trees by a companion and aubsequently he made some notes concerning the trees.

Dr. Strausbaugh described the trees and setting as follows:
"On a relatively ilat-topped grass and fern covered hill at one siac of the Cranberry Glades, are sone unusually large harthorn trees, Orateague spp, The forest of this area was cut sway many years ago so that the lend could be used for pasturage. Undoubtediy the hazthorns beowe established during this period. "As yet no borings have been aade to deteralne the age of. these trees, but tielr ize indioatas a venerable experience for tatay of thea.
"One tree in particular, at height of three feet from the ground, has a trunk diameter of 20 inches, and exceeds 40 feet in height. All of these trees, heavily plastered, draped and bearded with lichens, are strangely gray and old looking." The hawthorn is normally a small tree or large shrub selcou reaching more than 12 or 15 feet in height, and six or seven inches in diameter. These hawthorns seem to be in good condition, in spite of their apparent age, and barring the accidents of fire and lightning may continue to be landmarks in the comunity for many years.

NOTE- In my own writings, and at least in the oral discussions of others the name, "Strausbaugh hawthorn," has been applied to the largest tree of the group, honoring Dr. Strausbaugh who was first to bring the big tree to the attention of the public.

Dr. Strausbaugh mildy protested the application of this name to the trees in a conversation with me, probably out of feelings that were deeper than mere nodesty. However the name has become rather generally establl shed.

Publication of the infomation in this peper hes been ande in West Virginia newspapers and magazines and at least one national magazine.
$\qquad$ Date Dec 13 th 1941.

Researoh Worker $\qquad$ Date Research Taken $\qquad$
$\qquad$ Date Typed $\qquad$ by contact of flowers, description, \&\&
Source from history of 7est va wild flowers Date Filed $\qquad$ Glossary- from Columbia-Encyclopedia.

## (Note)

The first two sheets hereto attached, is a brief Glossary of the peculiar words used in describing the wild flowers; and it should be written before or after this Section. It will greatly aid a reader for a ready reference.

The following is a Glossary, and explanation of the obsolete, and peculaza words ueed in describing the wizd flowers; these words are all used in connection of all wild flowers.

ANTHER - Tip of the etamen, containing the pollen.
Aromatic - Fragrant spices or perfumes .
APEX ; - The tip point, Bummit, top.
AXILLARY The distal angle or point of divergence between a branch and loaf and the axds from which it eprings.

BASAL -- One of the leaves produced at the base of the stem.
BRACTS. - Abmall leaf or set of leaves.
CALYX-- ----Cuter covering of a flower.
CALICES- - Pl- of Calyx.
COROLLA- - The inner part of a flower composed of petals.
Creecent - Increasing, The increasing Moon, Circular.
CLEFT- --- Divided slightly more than half way to the mid rib with narrow sinuses;- applied to leaves; divided, parted.

COMPOSITE. --wade up of parte ; Compounded; Belong go or having the characters of of the gropp Compositae, as a Composite plant.

क力标
DODDZR-.. -... Any plant of the genius CUSCUTA the speciee of which are leufless parasites with yellow or whitish threadike steme.

KCRU----- -- Having the nuture, appearance, or pale brown color of raw or unbleachod etuff, as of Silk, linen or thelike, charkctoristic brownioh color.

1 SOLUCRE, ----Jn cortain ilverworte, a tisoue that growe around the em bryo

KEFI. ...... Any ridge -like pfocese . Somothing resembling a shipe Keel.
LOKYS......... Any rounded division or projection of an organ, ospecielly of $=1$ esf.

PALMATE- Resembling the habd with the fingers epread, ; Having Lobee radiating from a common point; The word was origionally applied to loaves with five Lobes.

PETIOLE-- ---A leaf stalk; the slender stem that supports the blade of a foliage leaf.

PETALS -..-- One of the leaves of a corolle
PISTIL --.-- An organ in a flower, inclosing the seed; The ovile-organ bearing the seed plant.

PINNATE- Having the leaflets or primary divisions arranged on each side of a common petiole or rachis ; applied to $\$$ compound leaves as those of Hickory or an Ash.

PLAITED--....--Folded; Braided; Artful; A doubling back;
RACBE--…- A cluster of flowers arranged along a stem.
SALVRR--...... A plate or waiter to present something on.
SESSILE------- Low; Dwarf; Attached directly by the base; not raised upon a stalk or peduncle as a sessile leaf; One resting directly on the main stem or branch without a petiole.

SEPALS… A leaf or division of the calyx.
SCAPZ-…- A peduncle raising from the ground and bearing the fructification in ite upex.

ETNGIS -.... Yale organ of a flower.
STIPULES……One of the pair of appendages born ${ }^{e}$ at the base of the leaf in wany plants.

UKBL-…… 4 eollection of mall flowors in a hoad.

NATURAL SETTING, Pocahontas County.
Chapter Three.
Part 2 Sec A.) (Wild flowers of Pocahontas County)

# Madder Family (Rubiaceze ) <br> Partridge Vine, Twin-berry ; Mitchell Vine :; Squaw Berry. <br> (Mitchell repent) 

Flowers -- Waxy, white ( pink in bud) fragrant, growing in pairs at ends of branches. Calyx usually 4 lobed; corolla funnel form, about $\frac{1}{2}$ in lon, the 4 spreading lobes bearded within; 4 stamens inserted on corolla threat l style with 4 stigmas; the ovaries of the twinflowers united. The Style is leg when the stamens are short, or vice versa.

Ster -- Slender, trailing, rooted at the joints 6 to 18 in . long, with numerous erect branches.

Leaves- Opposite, entire, short petioled, oval or rounded, evergeeen, dark, sometimes wite veined.

Fruit :- A mall red, edible, double berrylike drupe.
Preferred Habitat- In the Woods, in dry places, on the north hillsides. Flowering Season. April - June; and sometimes in the autumn.

A carpet of these dark, shining, little evergreen leaves, spread at the foot of forest trees, whether sprinkling over in June with pairs way creas-white, pink-tipped, velvety, lilac- scented flowers that suggest attenuated arbutus blossoms, or with coral-red berries in autumn and winter is surely one of the loveliest sights in the woods.

Tho woodland creeper rewards our cere with greater luxuriance of
 excellent epperturity for study. This specie of the kidder family is see of the most beautiful of the Pocahontas wild flowers, and is common is ell parts of the County.

Cardinal flower; Red Lobelia.
(Lobelin cardinalie)

Flowersm: Rich vermilion, veryrarely rose or white, 1 to $1 \frac{1}{2}$ in long, numeroue growing in terminals, erect, green-bracted, more or less l sided racenes. calyx-5 eleft; corolla tubular, split down one side, 2- lipped; the lower lip
 5 stasens united into a tube around the style; 2 anthers with hairy turte. Sten - 2 to $4 \frac{1}{2} \mathrm{ft}$. high, rarely branched. Leaves- Oblong to lance-shaped, slightly toothed, mostly sessile. Preferred Habitat:- Wet or low ground, beside strems, ditches, and meadow runnel Flowering Season July - September..

There is said to about 200 different species of the Lobelia plant but only two of the species are common in Pocahontas County, the cardinal and the Blue Lobelia, ; The comonest species popularily known as Indian Tobacco, has tiny wight to light blue flowers. The Lobelia plant has a tobacco-like odor and contains a volatile oil used in medicine. The Indiane ueed it in smoking mixtures.
(Lobelia eyphiliticia)

Flowers- ; Bright Blue, touched with white, fading to pale blue, abo ut 1 in. long, borne on tall, erect, leafy spike. Calyx 5 parted, the lobes sharply cut, hairy, Corolla tubular, open to base on one side, 2 lipped, irigularily 5 lobed, the petals pronounced at maturity only. Stamens 5, united by their
 larger anthers smooth i.

Stem- 1 to 3 ft . high, stout, leafy, slightly hairy.
Leaver- Alternate, oblong, tapering, pointed, irregularly toothed 2 to 6 in long $\frac{1}{2}$ to 2 ip. wide.

Esaferred Habitat- Moist or wet soil ; some times along the streams Flowering Season- July and October.

This species of the Lobelia plant is so common int the South West en Part of Poothontas County, and especially on Bruffeys, and Hills Creel,
that the entire neighborhood is called "LOBELIA" And the Post office of that region of the County is called"Lobelia" after this wild flower which is found so abundantly in that neighborhood.

## COMPOSITE FAMILY. (Compositae)

Iron weed; Flat Top.
(Vernonia no veboracensie)

Flower-head :- Composite of tubular florets only, intense reddish-purple thistle-like heads, borne on short, branched peduncles and forming broad, flatclusters; bracts of involuare, brownieh purple, tipped with awl shaped bristber Stem: 3 to 9 ft high rough or hairy branched.

Lerves:- Alternate, narrowly ablong or lance-olate, saw-edged, 3 to 10 in. long, and rough.

Proferred -Habitat.-Moist Soil, demp meadov fields. Flowering Season - July - Septrimber.

The Iron-weed is one of the beautiful wild flowers, that brighten the roadsides and low meadows throught the summer with bright clusters of blomm Then it is on the wane, the asters, for which it is sometimes mistaken, begin to appear, but an instants comparison shows the difference between the two flowers. After noting the yellow disk in the center of the aster, it isp not likely the iron-weed, $s$ thistle like head ofray floretsonly will ever again be confused with it. Another rank growing neighbor with which it has been comfounded by the novice is the Joe-Pye Weed, a far paler, old-rose color flower, as one does not meet them both afield may see on comparing the colored platee in the botaiical booke.

This wild flower is found mostly in the low altitudes of Pocahontes County; in the wet pasture lands.

Joe-Pye Weed; Trumpete Weed; Purple Thoroughwort; Gravel or Kidney-root; Tell or Purple Boneset.
(Eupatorium purpureum)
Flower-heads-- Pale or dull magenta or lavender pink, slightly fragrant, of tubular florets only, very numerous, in large, terminals, loose, compound elusters, generally elongated. Several series of pink overlapping bracte form the oblong involucre from which the tubular florets and its protruding fring of style-branches arise.
stem-: 3 to 10 ft . high green or purplish, leafy saually branching toward top. Leaves-: In whorls of 3 to 6 usually 4, oval to lance-shaped, saw edged, petioled, thin, rough.

Preferred Habitat:- Moist soil, meadowe, woode, and low ground.
Towering above the surrounding vegitation of low lying meadows this vigorous composite spesads clusters of soft, fringy bloom that, however deep or pale the tint, are ever conspicious advertisements, even when the colden-rode, sunflowers, and asters enter into close competition for insect trade. This worthless, and beautiful flower that is so common in all parte of Pocahontas County especially in low meadows; received its name from an Indian medicineman, of the New England Colonies, by the name of Joe-Pyo, who earned fame and fortune by curing typhus fever and other ereaded didoanes with decoctions made from this plant.

## vbactat;

Boneset; Common l Thoroughwort; Agueweed; Indian Sage.
( Eupatorium perfoliatum )

Flower-heads. - Composite, the numerous small, dull, wite heads of tubular florets only, crowded in spreading, flat-topped terminal cymes.

Stem:- Stout, tall, branching above, hairy, leafy.
Leaves-: Opposite, of ten united at their bases or clasping, land dy lance -shaped, saw-edged, wrinkled.

Preferred Habitat.- Wet ground, low meadows road sides . Flowering season. July -- September.

This is a very peculiar wild flower and plant; sometimes the stem appears to run through the comber of one large leaf that is kinky in the middle and taper-pointed at both ends, rather than between two leaves. Old-fashioned illness known as" break bone fever" doubtless paralleled to day by the grip- once had its terrors for a patient increased ahundred fold by the certainty he felt of taking nauseous doses of bone set tea, administered by $z e l o u s$ old women outside the " regular practice. Children had to have their noses held before they would - or indeed, could- swallow the decoction This weed was used by the Indians as medicine, and was by them introduced to the white men. It was used by the Chippewa Indians $f / j \beta$ as a charm It has the properties of Quinine.

## Golden Rod.

## (Solidago )

The Golden Rod Wild flower is by far the most popular of all the Composite Family of wild flowers in Pocahontas County.

This is handsome wayside plant of the genie (Solidago) Which in late summer or early autumn bears panicles of yellow flowers. One species has white blossoms. Most of the 125 species are native of North America, With the Aster, which bloom at the same time, the Golden Rod makes the last wild showy flower display in many parts of the country, and is so familiar every where that some of the States - Alabama, Kentucky, Nebraska, and North Caroliaahave chosen it for the State Flower ; In Europe the Golden Rod is cultivated in gardens . Some species were formerly used for making yellow dye, and were called " Dyers Weeds "
from

Along shady roadsides and in moist woods and thickets, August to October The Blue -stemed, Wreath, or Woodland Golden -rod (S. cresia) sways an unbranched stem with a bluish bloom on it.

Then thee flowers transforms whole acres into" fields of the cloth of gold the slander wands swaying by every roadside, and purple Asters add the final touch s of beauty and splendor to the Autumn landscape. This wild flower of Pocahontas County is found in both low and high altitudes. especially in masters, and pasture e lands.
(Chrysopsis mariana)
plower-honds - Composite, yellow, 1 in wide or less, a fee coryabed floweret on glandular stalks; each composed of perfect tubular disk floret surrounded by pistilate ray florets; the iswolacre cempamiate, ito narrow brace overlapping in several series.
stem-: Stout, silky, hairy when young, nearly soothe later, 1 to $2 f f$ tall Leaves ; - Alternate, oblong to apatalate, entire.

Preferred Habitat - Dry anil, or sandy, sell.
Flowering season- August- September.
Whoever comes upon slump of these handsome flowers by the dusty roadside generic
cannot but be impressed with the appropristmese of their $\mathrm{n}^{\text {mene }}$ (Chryeos - Gold )
This is a beautiful wild flower of Pecaliontas County, but is not as
common as other species of the Composite Golden lied fondly.

## (Erigeron annulus )

Flower-heads - Numerous, daisy-like, about $\frac{1}{2}$ in across; from 40 to 70 long, fine, white rays ( or purple or pink tinged) arranged around yellow disk Closets in a rough, hemispheric cup whose bracts overlap. Stem- Erect, 1 to $4 \mathrm{ft} h i g h$, branching above, with spreading, rough hairs, Leaves:- Thin, lower ones ovate, coarsely toothed, petioled ; upper ones sessile, becoming smaller, lance shaped. Preferred Habitat- : Fields waste land, and roadsides. Flowering Season: - May to No vember.

At a glance one knows this flower to be a kin to Robin, s plantain, the Asters and Dasies, That this wild flower known as Daisy Fleabane, drive away fleas, is believed only by those who have tried it out; when dried and sprinkled in dog kennels, when reduced to a powder, have been known to drive the dogs away. Hence the name fleabane.

Black eyed Susan; Yellow or ox-eye Daisy; Nigger-heads;
Golden Jerusalem Purple Cone -Flower.
( Rudbeckia hirta.)
Flower heads-- From 10 to 20 orange- yellow neutral rays around a conical, dark purplish-brown disk of florets containing bother stamens and pistil. Stem: - 1 to 3 ft . tall, hairy, rough, usually unbranched, of ten tufted, . Leaves:- Oblong to lance-shaped, thick, sparingly notched, rough. Preferred Habitat:- Open sunny places; dry fields. Flowering season- : May -- September.

So very many weeds have come to our Eastern shores from Europe, and marched and marched farther and farther west each year, it is but fair that black-of eyed Susan, a native of Western Clover fields, should travel Eastward to the Atlantic in bundles of Hay whenever she gets a chance, to repay Eastern farmers in their own coin. This black eyed Susan is a native of our Western years United states; but have become prime favorites of later in European gardens so offering them still another chance to overrun the old World, to which so much American hay is shipped;
( Thrifty farmers may decry the importation into their mowing lot :s, $p$ but there is a glory to the cone -flower besides the glitter of gold fades into paltry nothingness.

Any one who has had a jar of these yellow daisies standing on a polished table indoors, and tried to keep its surface free from ring of golden dustaround the flowers, knows how abundant their pollen is. The Black eyed Susan, like the English Sparrow has come to Stay in Pocahontas County.
yarrow; Old Man, e Pepper; Noeebleed.
(Achillor Nillofolium)

Flower heads:- Grayish -white, rarely pinkish, in a hard, close, flat-topped compound cluster. Ray faorets 4 to 6 , pistillate, fertile; disk florets yollow, afterwards brown, perfect, fertile.
stea:- Erect, from horizohtal root-sialk, 1 to $2 \mathrm{ft}_{\mathrm{c}}$ high, leafy, sonetines hairy. Leaves:- Very finely dissected.
Preferred Habitat:- Waste land, dry fields, banks, roadsides, especially in meadows in dry rocky land.

Flozering Season :-- June -- No vember.
Every where, in Pocahontas County this commonest of common weeds confronts us; the compact, dusty-looking clusters appearing not by waysides only, around the world, but in the mythology, folk-lore, medicine, and literature of many peoples. As a love charm; as an herbtea brewed by crones to cure divers ailments, from loss of hair to the ague; as an inducement to f $\phi$ noseblodiling for the relief of conjective headache; as an ingredient of an especially intoxicating beer made by Swedes, it is mentioned in old books. Kowalays wo are satisfied merely to admier the feathery masses of lace-like follage fonsed byyoung plante, top whiff the wholesome, nutty, autumnal odor of its flowers, or to wondor at tho marvelous scheme it employs to overrun the sarth. This yarrow plant at one time was considered a pest to the fanmers of Pocahontas County, and it was dug up in the meadows; and whilethe flewer is very besutiful, it is one of the most worthlese of all the Conpenise wili flewors of Peowhontan Counth. It was naturalized from Burepe.

Jogs or Foetid Camomile: Mayweed; Pigs-sty Daisy ; Dillweed; Dog-fennel. (Anthomis Cotula (Maruta Cotula)

Flower-heads :- Like small dasies, about 1 in. broad; 10 to 18 white notched neutral ray florets around a convex or conical yellow disk, whose florets are fertile containing both stamens and pistil, tubular, 1 to 2 ft . high, leafy with unpleasant odor and acrid taste.

Leaves:- Very finely dissected into slender segments.
Preferred Habitat: Roadsides, dry waste land, sandy fields.
Flowering Season-: June -- No vember.
Dog; used as a prefix by several of the plants folk - names, implies contempt for its worthiness. It is an other species, the GardenCamomile (A nobilis), which furnishes the ap thecary with those flowers whish, when steeped into a bitter, aromatic tea, have been supposed for generations to make a superior tonic and blood purifier.

This Dog-finnel plant mostly in wet sour land, it is a beautiful flow but is a worthless plant.

Common Daisy; Wite weed; Oxeye- Daisy; Marguerite; Love-me; Love-me-Not. (Chrysanthemum Laucanthemum )

Flower -hoods- Disk- florets yellow, tubular, 4 or 5 toothed, containing stamens and pistil; surrounded by white ray florets, which are pistillate, fertile Stem:- Mostly oblong in outline, coursely toothed and divided. Preferred Habitat:- Meadows, Pastures, Roadsides, waste land, grows every where in the open, will not survive in the woods or in the shade of timber. Flowering season :- May - No vember.

Myriads and myriads of dasies, whiten many of the fields of
Pocahontas County as if a blizzard had covered them with a snowy mantle in June and fills the farmers with dismay; wile the flowers are filled with rapture as they behold their beauty.

At one time the farmers of Pocahontas County, thought that oxeye Dasies mas an azeful pest and would ruin their land, and fields of meadows, but later it was conceded that when a field of ox-oye Daisies were plowed under It was a good soil builder ;

The Ox-eye Daisy is said to be an naturalized immigrant from Europe. It is mong the most conspicuous of flowers.

Tansy; Bitter-buttons.
(Tanacetum vulgare )
Flower-hoads- small; round, of tubular florets only, packed within a depresesd involucre, and born in flattopped corymbs.
stear-: $1 \frac{1}{2}$ to 3 ft . tall, leafy.
Leaves: - Deeply and pinnately cleft in narrow, toothed divisions; strong scented. Proferred Habitat:- Roadsides ; commonly escaped from gardens.

Flowering - Season:- July - September
Tansy tea, in short cured every ill that the that hoff flesh is heir to, according to simple faith of many of the early settlers - and fath still surviving in many old women even to this day. In the early settlement it was believed that to soak Tansy leaves in buttermilk for nine days, and tben applied, it would make the complexion very fair.
so great credence having been given to its medicinal powers in Europe it is not strange the colonists felt they could not live in the New World Without iansy. Strong-scented pungent tufts topped with bright yellow buttonsrunaraye from old gardens-are conspicuous feature along many a roadside leading to colonial homesteads. This Tansy plant is Naturalized from Europe.

It is a pretty well established fact that Daniel Boone was a visitor at times at Dunmore. Najor Warwick once decided to move to Kentucky. Perhaps Boone helped persuade him. There is a story that Colonel Boone and Major Warwick had a fist fight at Clover lick. It may have been because of the turning back at Sewell Nountain and it may have been over lands in Tygarts Valley in which both were interested. There is a tradition that lirs. Warwick was the cause of them turning back at Sewell Wountain and that Boone threw up "petticoat government" to Jacob Warwick and that the fist fight followed.

In pioneer days Dunmore was a busy place, with the rort, store, mills, blacksmith, gunsmith, powder maker and other necessary things required to develop and maintain a great estate in a new country.

The Moores were descendents of lioses hoore, noted pioneer and Indian fighter. There were three Moore pioneers in this county not related to each other.

The NoLaughlins settled on Thomas Creek. Squire Hugh Nolaughlin sat on the county court ror eighteen years. He mas influential in putting Pocahontas dry by refusing to license saloons and "ordinaries". This was over ninety years ago. It was one or the first counties to go on the dry list.

There were the MaCutcheons. It was said of this fam$11 y$ that they nere always present and on time at public worship thouph the ohurohes were et Greenbenk and Huntersville, eight and teolve miles oway.

## CRANBERRY GLADES

OF POCAHONTAS COUNTY.
The Cranberry Glades are located in Pocahontas county about twenty miles from the Virginia border in a depression among the Yew Mountains. The glades are a former bog or swampy region which has been caused by the raising up of the mountains about them and from the water seepage which seems to have been fairly great. The glaces, at an elevation of 3,400 feet, lie between Black Mountain on the E $e_{2}$ st, Cranberry Mountain on the South and Kennison Mountain on the Southwest. Recently CCC boys built a road into the heart of the Glades off State Route 39 about five miles west of Mill Point on U. S. Route 219.

Cranberry Glades is the largest and most widely known glade area in West Virginia. There is another glade region in Preston county but it is not nearly as large as this one in Pocahontas county.

The vegetation, here, is characteristic of a region of the latitude of Southern Canada. This is probably due to the fact that in the travel of the 1 ce sheet southward seeds from these northern plants were carried southward. Several other factors may have contributed to the placing of different plants in this region, such as streams, the wind, migratory birds, and man. These plants estab11ehed themselves in the Glades because the soil here was eherneteristic of their natural habitat.

Fina resion to dration by Groniecry ass purery
 nad Blnck Kountalas with ganal strenag eaptylag ints is all along lts course. Cherry fliver has the hend mitors in the Yewlountains on the nifth. All these streans drain tills region known as the Glades.

The olants characteristic of the Gla es are: Cranberries, hawthorns, moss-lichens, orchids, Southern Chain Fern, Sundew, Bog Rosemary and other swamp vegetation. In these glades are found two types of Cranberries both of which are edible in variety, and of the same apectes as those in the bogs of Massachusetts which are used commercially.

The Cranoerry gives name to the bogs or Glades. There are several trailing species of the family (Vaccin1aceae) genus (oxycoccus) but only two are found in the glades of Pocahontas county, they are smaller ( 0 . oxycoccus) and larger ( 0 . macrocarpus). Both are trailing vines bearing small evergreen leaves which are dari and shining above, glaucous below, revolute at the margin, ovate, lanceolate or elliptical in shape and not more than a half inch long. The inconsplcuous flowers which appear in hay or June, are saall end etniked, having a four-lobed, rosetinted corolle, purplish fllaments and anther-cells. forming two long tubes. The globular or pyrlfora frults or berries
borne on slender curved stalks, whilch suggested the name crane-berry, the neck of a crane, are about the size of currants, crimson in color, often spotted and have an acid or astringent taste.

Although the larger variety is the one that is cultivated and used commercially the smaller is considered to produce finer flavored fruits.

The cranberries prefer swampy or marshy soil, rich in peat and that is one reason we find cranberries in what is known as Cranberry Glades in Pocahontas county. Sphagnum, a genus of the mosses, furnishes the peat. The land must be well drained and we find that many small streans rise in these glades and flow west or south to Cranberry or Cherry Rivers.

Sphagnam, a genus of the mosses found in this region is of the family Sphagraceae and grows in molst places or bogs forming a soft, thick carpet, saturated with water. These are perennials of feathery aspect, growing at the top of the stem from year to year. Some of the numerous branches grow upward and form tufts at the apices of the stems, while others droop downward and envelope the lower portion of the stem. Each year one of the side branches grows so strongly as to rival the maln head, and thus Eives a forked apperanance to the plant. The lower end of the stem is continuously dying away, eventually forming peat, and thus frees the lower ends of the branches, wiloh
thereupon start into independent plants. Special branches, differentiated by color and structure, produce the sexual organs, the two organs being on the same plant or separated. The spore-capsules are on short branches and are globular, with a lid. The small, translucent leaves, like the stem have strata of transparent cells, connected by holes, wilch are capable of absorbing and retaining much water. This ability to retain water has made the sphagnum moss very valuable to florists, who use it for packing bulbs and flowers, and forms a large part of the compost employed for growing pitcher-plants and orchids.

During the entire season Ordhids have been
found about the dryer areas of the bogs and its presence is also made possible by the growth of sphagnum-moss.

These monocotyledonous plants of the order Orchidaceae of which there are more than 12,000 known species and many thousand varieties are by far the most interesting order of plants of the entire vegetabel kingdom because of the extraordinary mode of growth and existence, theri great age and endurarce, their curious habits and varied foris of their ilowers, which are distinct from all other plants, fine in texture and of glowing and exquisite colors. They are remarkable also because of their ready adaptability and free permission of cross-breeding or cross-fertilization. This is true of them in their natural habitat as well as under practical cultivation. This fact accounts for the almost endiess varleties of flowers and colors.

These plants have queer small seeds sometimes millions In a capsule; reproduction was unknown to science for hundreds of years, now these plants are known to sprout only in the presence of certain fungi.

The flower is made up of several parts which include: sepals, petals, labellum or pouch, and column or crest, resting upon the modified hollow ovary, and bearing the one or two stamens and the two or three stigmas. The pallen-grains are aggregated into peculiar pollen masses. The structure of the fiower is a modification of the typical thre-part pattern of the lilies. Four or five out of the six original stamens of the flower are suppressed also one of the stigmas is suppressed. The labellum, which is a modified petal, is as a rule the most conspicuous part and is the most wonderfully constructed as well as the most important organ of the flower. It is through the labellum that insects, when in search of sweet nectar stored inside the spur or walls of the flower are attracted and guided to it and thus sccomplish the benefits of cross-fertilization. It is In this may that so many new varieties, "natural hybrids" are produced by the unconscious work of insects.

Orcilds, walch are distributed over a large sres of both the Eastern and Western hemispheres are divided into two general Eroupe---the Enst Indian and the South Amerioan. These are then olaselfied according to
their growth and subsistence, as saprophytic, epiphytal and terrestrial. The saprophytic include varieties which grow in wet and marshy places and are of little value except for botanical purposes. The epiphytal group which is by far the most valuable and most important grows and thrives best upon trunks or limbs of trees in mid-air simply clinging to a single stem or small limb. It is this group, too, which contains the most beautiful and most valuable species and varieties and the most varied colors.

The terrestrial orchids, as their name Indicated are such as grow upon the ground and have no need for the pseudo-bulbs or hypertroph1ed stems, which are peculiarly characteristic of the epiphytal group. It is the saprophytes and terrestrial groups that we find in the United States. Those found in Cranberry Glades probably belong to the saprophytes class as this region 1 s marshy.

The Grass Pink (Calopogon pulchellus) and the Snakemouth Orchid (Pogonia ophioglossoides) are fairly abundant, here, and when in bloom, the lovely rich colors. of their flowers contrast them with the somber hues of the background of mosses and lichens. A few of the plants of the Yellow-fringed-Orcid are found here but the burntorange tue of the ragged flowers, borne on splendid spikes soon attracts the attention of those who have the good fortune to visit this region during the blooming season. Another orchid of this glade, exceedingly rare in this
stste is the little Twayblade (Listera Smalli1). This two-leafee dwarf, so small and dellcate and hidden away beneath other plants, is likely to remain invisible to all eyes except those trained and alert for the perception of unusual plant forms. Its flowers are few, tiny and a dark purple in color.

Moss-lichen is a combination of moss and lichen. The moss (musci) is a flowerless plant often growing on rocks and in motst places. They help to retain the water supply. Under favorable conditions the life of a moss plant seems to be endless. The male reproductive organs, anther1da, are club-shaped and contain cells which afterward defelop into antherozoids, these when liberated move about until they come in contact with the female reproductive organ, archegonium. The fertilized archegonium is then carried upward on a slender filament or seta, and now forms the fruit or capsule, usually closed by a lid. When ripe the capsult opens and liberates the spores. The capsules of many species being small sacs at the end of hair-like stalks, wich rise in great numbers from a moss cushion. These capsules contain spores from each of shich when sown there grows in a few days a tiny plant, the protonema a olsse of cryptogamous plants forming with the liverworts the group suscinae or Bryophyta. New ones are continually springing from old shoots, so that in bogs the tops remain erowing walle the under-layere die and the deeper ones slowly change into pest.

The lichens, a fungus, attaches itself to the moss in Cranberry Glades forming what is commonly called moss-lichen but is rightly lichens as they are double plants, each made up of an intimate combination of alga and a fungus. The alga furnishes the food and the fungus protects the alga against the sun's rays and absorbs water. Lichens in many places form encrusting growths on rocks and stones, on the stems and branches of trees, on walls ano fences and on the earth. They are common in every zone and in all altitudes. They propagate by spores developed in various ways from the component fungus, but with these the partner alga must be speedily associated. Another frequent mode of multiplication is by means of bloodbuds, which consist of a few algal-cells plus a separated portion of the fungus. The fruits of these are known as apothecia. The lichens of wiich there are 4,000 known species may be grey, yellow, brown, greenish, blue, or black and have neither roots or stens but have layers of varlously shaped expansions called thalli. These plants not only make their chosen places of abode more beantiful, but they help pave the way for other forms of life. Growing as they do upon exposed rocks and in barren soll they secrete an acid which dissolves the rock and softens the soil, and in time when they decay and mix with the soll, they enrich it so that more highly-developed plants can grow there.
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## CRANBERRY GIIADES.

nHidden away in the mountains near the western border of Pocahontas
county, readily accessible from Richwood, W. Va., lies a bit of strangely fascinsting country, the Cranberry Glades. Ever since the discovery of tils interesting region, its natural features have attracted the attention of hunters,fishers, botanista, geologists, ornithologists and naturaiists of every sort The Glades proper and the adjoining mountain slopescomprise an area of some 300 acres. The entire section is remote, all in a semi-wild state, away from mobor highways and all business and social centers.
"Reaching this isolated wonderland, one finds mute but unmistakable evidence of the relatively recent history of this region, a once magnificent spruce-birch forest destroyed by lumbermen some 30 years ago. The area is now(according to Dr. P.D.Strausbaugh, of the biological department of West Virginia university, one of the best authorities on the Cranberry Glades, who hes visited and studied its flora and fauna) occupied by fire cherry, rhododendron and brambles with a liberal admixture of spruce and birch seedlings, all cooperating to lay the foundation of another forest. Decaying stumps and moss covered trunks lying where they fell, still reveal something of the luxuriant forest that stood there in previous generations.
morchids grow wild in the Cranberry Glades. Stories aretold that from 27 to 77 different species are found. Scientists who have studied plant lif there, however, say there are but three different species.
${ }^{-D}$. Strausbaugh in his article relates: 10 rchids were abundant but only three species were repre sented. The beautiful blossoms of the snake-mouth orch1d (Pogonla ophioglossoldes) and those of the grass|pink (Calopogan pulehellus) gave a lively touch to the somber color scheme,standing out like rosente gens against a dull background.

* The olides are filled with bird life. Visitors, both scientists and laymen, have expressed the bellef that every tree and bush has its quota. The woodiand is made bewitching by the warblers. Dr. Otrausbaugh states: The
the Veeryand the hermit thrushwere heard frequently and there certain be no music on earth or in heaven more pleasing or expressive than that
the hermit thrush.
"Scientists explain that the formation was probably at one time a lake with eeps and shallows, gradually filling up as vegetation decayed. This explains hy some of the glades are more advanced than are others and explains why there $s$ an elevation in the midst of the glades called an 'island on which there s still virgin timber, void of shrubs and brambles making what appears to be ell kept picnicking grounds.
"Recently the federal government has acquired this entire region as a part If the Honongahela National forest. The Cranberry Glades, named from the two species of cranberries that are common in this area, is being improved as a rild-life sanctuary. Thus protected against commercial invasion this area is Insured an indefinite period of reforestation and protection of its natural charms and interest for succeeding generations.
"The Glades can now be reached readily, in good weather, through Richwood, by use of forest trails, over which automobiles can pass by arrangements with the United States forest service, with very little inconvenience. The route carries the tourist or othervisitor a short distance up the North Fork of the Cherry river, thence, over the divide into the Cranberry river valley. Beautiful, rugged natural scenic wonders unfold themselves along an almost perfect water grade route, winding along the Cranberry, past beautiful Camp Foodbine, and past the C.C.C.camp at Cranberry.This route passes 'Dogway' an old lumberjackts landmark, and all along the route may be seen the rutns of former lumber easps, the railroads and $\log$ roads which first penetrated this vast area of Which within a radius of approximately one hundred miles. Richwood is the larg est populated center.
"Under construotion now, is the 'Missing linkt of route 39 which, when completed, will give an almst perfect water grade crossingof this area to a juncthon with the Senecs trail at Mill Point, into the Oreenbrier river valley. When
fry Glades.
Gleted the route will give tourists crossing southern West Virginia
foto the great valley of Virginia an impressive and interesting travel route through the Monongahela, the George Washington and the Shenandoah national forests, to the famed Sky Line drive and the other shrines, caverns and points of interest in the Old Dominion."

From
"The Charleston Gazette"
Sunday, August 15,1937-p. 12.

## Hore About Craniberry Glades

This region surpasses all others in that it furnisies a continuous series of surprises.

It is generally known as BiE Glade being in extent some three hundred acres, covered with a carpet of mosses, lichens, low shrubs presenting a multi-colored picture something like a patchwork quilt of gray, green, rose and brown. The glade itself is of an elevation $B f$ about 3,400 feet whlle the mountains all ebout it rise to about 4,000 feet.

Many species of plants are found here, Buckbean (Menyanthes trifoliata), bog rosenary (Andromeda glaucophylla), sundew (Dorsera rotuncifolia), Orchiōs abounà (Three species represented), lare fruited jumeberry(Amelanchier Canadensis), wild raisin (Viournum cassinoides) and mpuntain holly (Ilex monticola).

On the margin of this large open Elace is a wellbefined zone of seafes, dulichium and carex. Back of the sedges is a continusus belt of alders beneath wilch we Ind aquatic grasses and other herbeceous plants and others such as Skunk Cabbsee (Symplocerpus foeticus of Eray), American hellebore (Veratrum virlảe). and blue monkshood (Aconitum unciratum).

Stil1 back of the alaers 18 the tree zone of spruee and blroh with an undergrovtin of American yew (7nxus annedenela).

There is a vigorous warfare existing between the mosses and 12chens. In one place the mosses are successful and gaining eround wille in anotizer the lichens are overgrowing the mosses and steadily advancing their lines. The mosses include those species as sphagnum and polytrichum wilile the claconias clearly predominate among the llchens. Lichens are found on nearly all the trees. wilch make up plant life in the area around the glade. The falsely called "reindeer moss" (Cladonia ranciferina) is really a lithen, and forms rather extensive patches in Oranberry Glaāēs. Its nearly wilte flowers aảa much to? no! the varlegated color-pattern of the glade.

Trailing swamp blackberry is found in abundance and its long prostrate stens bearing a profusion of Elossy green leeves makes some very pretty tracings on the dullcolored carpet of lichens.

Following is a description of those plants not cescribed in a previous paper:

The Buckbean (ienyanthes trifoliata) is commoniy found in cpongy, boegy solls and flowers about the latter part of thay and early June. The plant has a procumbent stem rining to a heigit of from six to twelve inches and octered by the eheathe of the leaves and a creeping jointed root. The leaves are trifollate (like those of elover), with obtuse, ovate leaflets. The flower-stalk terulnates in a thyrse of wilte flowere, rose-colored.
outwardy. The calyx is five-parted, the corolla fun-nel-shaped, spreading and clothed on the inner surface with a coating of dense fleshy hairs. The frift consists of a one-called, two valved capsule containing numerous seed. The entire plant, the root especially, has an intensely bitter taste, and an extract of it ranks as a valuable tonic quite equal in its effects to gen tian. It is said to be beneficial in intermittent fevers, gout, liver cemplaint, dropsy and scurvy. Bog Rosemary, sundew, ando orchicas (see previous paper).

The large fruited juneberry (Anelanchier $C_{2} n-$ adensis) sometines known as Service-berry, prefers ary so1ls and flowers from March until May. This is a large shrub or tree, usually much less than twenty-five feet in helght and rarely twice that heigit. The oval leaves Which alternate on the stem, are tapering at the tin, finely saw-edged, smooth like those of the pear tree but often halry when young. The flowers on long, slencer pedicels, in epreadigg or corooping racenes with silky, redeleh bracte eaong them, are pure wilte and over one Ineh across. Taey consist of a flve-parted, persistent eslyx, flve lons, narrow tapering petals, taree or four thee the length of the onlyx, and numeroue stazens inserted on the endyx thront; with two to five styles,
hairy at the base, The fruits are rounc, crimson, sweet, edible, seedy berries wilich are rine in June and July.

The Mountain Holly (Ilex monticola)--Nemopantines Cenedensis of Gray--a shrub of the nort.iern swanps about six feet high, and by no means confined to mounta nous reg-ons, since it is also abundant in the midale West, has smooti-eãged, elliptic, petioled̉ leaves, ash-colored bark, small, solitary, narrow-petalled stamEnate and pistillate flowers on long, threadike pedicels from the leaf-axils, in liay. In August dull-pale-red berries appear. The leaves are not as glossy as those of the European variety and this holily prefers swampy places.

The seăges found here are tenus of Cyperaceae which are sometimes used in converting swamps into dry ground. These are nearly akin to the grasses but easily distinguished by their solid, unjointea, generally triangular stems, undiviaed leaf-sheaths, and the absence of paleae. Dry and rough in texture they furnish only the poorest contituent of focider or hay, nor with few exceptions have they any other economic uses. The two Eenus found here are dullchium and carex.

There are nany alders in Cranberry Glade, one blace alder or winterberry (Ilex verticillata) belongs
to the Holly family and flowers in June and early July. This plent is a shrub six to twentyofive feet in height with oval, saw-edged, dark green leaves tapering to a point, about one inch wiade, smooth above and hatry especially along veins beneath. The small, greenish-white flowers are in clusters, the staminate clusters being two to ten flowered, and the fertile ones one to three flowered. Beautiful bright-red berries, about the size of a pea, apparently whortled around the twigs cover the branches during the late fall and early winter aonths. The preferred habitat of the black alaer is swanps, ditches, fence-rows or low thickets.

The Wilite alder (Clethra alnifolia) like the black alder prefers swampy places but fitoflowers in late July and early August. This much-branched shrub, grows froa three to ten feet in height. The leaves wiich alternate on the sten, are oblons or ovate, finely sawedged above the micide at least, green on both sides and inpering ot the base into short petioles. Thervery fragrant, walte flovers waich are sbout one-thirà of an Inch aerose are borne in long, narrow, upright, olusterec aikes, with aml-shaped bracte. These flowers have a ealyx of five sepals; and contain five long petals; ten protruding stamens with one style the longest.

Inventory of Neteriale
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GIANT HATITHORNS

Several hawthorn trees, Orateacus spo., standing in the. Oranberry Glades of Pocahontas county, a short distance from the State Road Route 24, are of exceptional size and bear many indications of great age.

Some comparisons have been made of these trees with others of the sane species in West Virginia and other states. The coparisons indicate that the hawthorns of the Cranberry Glades are unusually large, especially one of the trees which is larger than others of the group.

Attention tras not called to the unusual size of the tree until very recently. The big hewthorns were probably first described by Dr. P. D. Strausbaugh, Professor of Botany, West Virginia University, who has visited the region a number of times. Eis ettention was first called to the trees by a companion and aubsequently he made some notes concerning the trees.

Dr. Strausbaugh described the trees and setting as follows:
"On a relatively flat-topped grass and fern covered hill at one side of the Cranerry Glades, are sone unusually large hasthorn trees, Orateagus spp, The forest of this area was cut away wany yeurs ago so that the lend could be used for pasturage. Undoubtediy the hasthorns becowe established during this period. "As yet no boringa have been rade to deternine the age of. these trees, but their 1 ie indioatas a venerable emperience for atay of them.
"One tree in particular, at height of three feet from the sround, has a trunk diameter of 20 inches, and exceeds 40 feet in height. All of these trees, heavily plastered, draped and bearded with lichens, are strangely gray and old looking." The havthorn is normally a small tree or large shrub selion reaching more than 12 or 15 feet in height, and six or seven inches in diameter. These hawthorns seem to be in good condition, in spite of their apparent age, and barring the accidents of fire and lightning may continue to be landmarks in the comunt ty for many years.

NOTE-- In my own writings, and at least in the oral discussions of others the name, "Strausbaugh Hawthorn," has been applied to the largest tree of the group, honoring Dr. Strausbaugh who was first to bring the big tree to the attention of the public.

Dr. Strausbaugh mildy protested the application of this name to the trees in a conversation with me, probably out of feelings that were deeper than mere sodeaty. However the name has become rather generally establl shed.

Publication of the information in this peper has been wade in West Virinia newspapers and magazines and at least one national magazine.

Researoh Worker $\qquad$ Date Research Taken $\qquad$
$\qquad$ Roscoe W. Brown. Date Typed $\qquad$ sy contact of flowers, description, \&\&
Source from history of 7est Va will flowers Date Filed $\qquad$ Glossary- from Columbia-Encyclopedia.

## (Note)

The first two sheets hereto attached, is a brief Glossary of the peculiar words used in describing the wild flowers; and it should be written before or after this Section. It will greatly aid a reader for a ready reference.

Roscoe w. Brown.

The following is a Glossary, and explanation of the obsolete, and peculama words used in describing the wizd flowers; these words are all used in connection of all wild flowers.

ANTHER- Tip of the etamen, containing the pollen.
Aromatic - Fragrant spices or perfumes .
APEX ; - The tip point, summit, top.
AXILLARY The distal angle or point of divergance between a branch and leaf and the axds from which it eprings.

BASAL -- One of the leaves produced at the base of the stem.
BRACTS. - Abmall leaf or set of leaves.
CALYX-- ---- Outer covering of a flower.
CALICES- - Pl- of Culyx.
COROLLA- - The inner part of a flower composed of petals.
Crescent - Increasing, The increasing Moon, Circular.
CLEFT- --- Divided slightly more than half way to the mid rib with narrow binuses;-applied to leaves; divided, parted.

COMPOSITE. --Made up of parte ; Compounded; Belong go or having the characters of of the group Compositae, as a Composite plant.
chata
DODDER-.. -... Any plant of the genius CUSCUTA the speciee of which are leufless parasites with yellow or whitish threadlike steme.

YCRU----- --- Having the nature, appearance, or pale brown color of rav or unbleached etuff, as of Silk, linen or thelike, charkctoristic brownioh color.


KKEL. ....... Any ridge -like pfocese . Somothing resembling a ehipe Keel.
 of $\mathrm{a}=1 \mathrm{sef}$,

PALMATE- Resembling the habd with the fingers epread, ; Having Lobee radiating from common point; The word was origionally applied to leaves with five Lobes.

PETIOLE-- ---A leaf stalk; the slender stem that supporta the blade of a foliage leaf.

PEIALS -..- One of the leaves of a corolle
PISTIL …-. An organ in a flower, inclosing the seed; The ovile-organ bearing the seed plant.

PINNATE- Having the leaflets or primary divisions arranged on each side of a common petiole or rachis ; applied to $\$$ compound leaves as those of Hickory or an Ash.

PLAITED--....--Folded; Braided; Artful; A doubling back;
RACBER---… A cluster of flowers arranged along a stem.
SALVR--…-. A plate or waiter to present something on.
SESSILE--.-.-. Low; Dwarf; Attached directly by the base; not raised upon a stalk or peduncle as a sessile leaf; One resting directly on the main stem or branch without a petiole.

SEPALS… A leaf or division of the calyx.
SCAPZ-…-- A peduncle raising from the ground and bearing the fructification in ite mpex.

STAgis -.... Hale organ of a flower.
ETIPULES-…-COn of the pair of appendages born ${ }^{\theta}$ at the base of the leaf in many plants.

NATURAL SETTIING, Pocahontue County.
Chapter Three.
Part $2 \operatorname{Sec}$ A.) (Wild flowers of Pocahontas County)

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    Wadder Fumily (Rubiacere )
    Patridge Vine, Twin-berry ; Mitchella Vine :; Squav Berry.
    (Mitchella repena)
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Flowers -- Waxy, white (pink in bud )fragrant, growing in pairs at ends
of branches . Calyx usually 4 lobed; corolla funnel form, about $\frac{1}{2}$ in. long,
the 4 spreading lobes bearded within; 4 stamens inserted on corolla throat
1 style with 4 stigmas; the ovaries of the twinflowers united. The style is loge
when the stamens are short, or vice versa.
Stem -- Slender, trailing, rooted at the joints 6 to 18 in . long, with
numerous erect branches.
Leaves-- Opposite, entire, short petioled, oval or rounded, evergeeen, dark,
sometimes white veined.
Fruit :- A small red, edible, double berry-like drupe.
Preferred Habitat- In the Woods, in dry places, on the north hillsides.
Flowering Season. April - June ; and sometimes in the autumn.

A carpet of these dark, shining, little evergreen leaves, spread at the foot of forest trees, whether sprinkling over in June with pairs waxy croac-mite, pink-tippod, velvety, lilac- scented flowers that suggest attenuated arbutus blossoms, or with coral-red berries in autumn and winter is surely one of the loveliest righto in the woods. the woodland proper rewards our care with greater luxuriance of
 excellent opportunity for study. This opocio of the Madder family is sos of the nest beautiful of the Pecationtae wild flowers, and is common in all porte of the County.

Cerdinal flower; Red Lobelia.
(Lobelin cardinalie)

Flowersm: Rich vermilion, veryrarely rose or white, 1 to $1 \frac{1}{2}$ in long, numeroue growing in terminals, erect, green-bracted, more or less l sided racemes. Calyx-5 cleft; corolle tubular, split down one Eide, 2- lipped; the lower lip
 5 stamen united into a tube around the style; 2 anthers with hairy tufte. Stem - 2 to $4 \frac{1}{2} \mathrm{ft}$. high, rarely branched. Leaves- Oblong to lance-shaped, slightly toothed, mostly sessile. Preferred Habitat:- Wet or low ground, beside streme, ditches, and meadow runnel Flowering Season July - September..

There is said to about 200 different species of the Lobelia plant but only two of the species are common in Pocahontas County, the Cardinal and the Blue Lobelia, ; The comonest species popularily known as Indian Tobacco, has tiny wight to light blue flowers. The Lobelia plant has a tobacco-like odor and contains a volatile oil used in medicine. The Indiane used it in smoking mixtures.
(Lobelia eyphiliticia)

Flowers- ; Bright Blue, touched with white, fading to pale blue, abo ut 1 in, long, borne on tall, orect, leafy spike. Calyx 5 parted, the lobes sharply cut, hairy, Corolla tubular, open to base on one side, 2 lipped, irigularily 5 lobed, the petals pronounced at maturity only. Stamens 5, united by their
 larger anthers smoothi:

Stem- 1 to 3 ft . high, stout, leafy, elightly hairy.
Leaver- Alternate, oblong, tapering, pointed, irregularly toothed 2 to 6 in long $\frac{1}{2}$ to 2 ip, wide.

Easiesred Habitat- Moist or wet soil ; some times along the streams Flowering Eeason- July and October.

This species of the Lobelia plant is so common in the South Western Part of Poothentas County, and especielly on Bruffeys, and Hills Crgek, thet the ontire neighborhood is celled "LOBELIA" And the Post office of that region of the County is called"Lobelia" after this wild flower which is found so ebundantly in that neighborhood.

## COMPOSITE FAMILY. (Compositae)

Iron weed; Flat Top.
(Vernonia noveboracensis)

Flower-head :- Composite of tubuler florets only, intense reddish-purple thistle-like heads, borne on short, branched peduncles and forming broad, flatclusters; bracts of involuare, brownish purple, tipped with awl shaped bristle Stem: 3 to 9 ft high rough or hairy branched.

Lerves:- Alternate, narrowly ablong or lance-olate, saw-edged, 3 to 10 in. long, and rough.

Proferred -Habitat. Hoist Soil, damp meadov fields. Flowering Season - July - Septrimber.

The Iron-weed is one of the beautiful wild flowers, that brighten the roadsides and low meadows throught the summer with bright clusters of blomm Then it is on the wane, the asters, for which it is sometimes mistaken, begin to appear, but an instants comparison shows the difference between the two flowers. After noting the yellow disk in the center of the aster, it isp not likely the iron-weed, $s$ thistle like head of ray floretsonly will ever agein be confused with it. Another rank growing neighbor with which it has been comfounded by the novice is the Joe-Pye Weed, a far paler, old-rose color flower, as one does not meet them both afield may eee on comparing the colored platee in the botaiical books.

This wild flower is found mostly in the low altitudes of Pocahontes County; in the wet pasture lands.

Joe-Pye Weed; Trumpete Weed; Purple Thoroughwort; Gravel or Kidney-root; Tell or Purple Boneset.
( Eupatorium purpureum )
Flower-hoads-- Pale or dull magenta or lavender pink, slightly fragrant, of tubular florets only, very numerous, in large, terminals, loose, compound clusters, generally elongated. Several series of pink overlapping bracts form the oblong involucre from which the tubular florets and its protruding fring of style- branches arise.
sten-: 3 to 10 ft . high green or purplish, leafy ssually branching toward top. Leaves-: In whorls of 3 to 6 usually 4, oval to lance-shaped, saw edged, petioled, thin, rough.

Preforred Habitat:- Moist soil, meadowe, woode, and low ground.
Towering above the surrounding vegitation of low lying meadows this vigorous composite spesads clusters of soft, fringy bloom that, however deep or pale the tint, are ever conspicious advertisements, even when the colden-rode, sunflowers, and asters enter into close competition for insect trade. This worthless, and beautiful flower that is so common in all parte of Pocahontas County especially in low meadows; received its name from an Indian medicineman, of the New England Colonies, by the name of Jes-Pye, who earned fame and fortune by curing typhus fever and other Areaded dideaves with decoctions made from this plant.

## v.bひezct;

Boneset; Common? Thoroughwort; Agueweed; Indian Sage.
(Eupatorium perfoliztum )

Flower-heads. - Composite, the numerous small, dull, wite heads of tubular florets only, crowded in spreading, flat-topped terminal cymes. Stem:- Stout, tall, branching above, hairy, leafy. Leaves-: Opposite, of ten united at their bases or clasping, diddly lance -shaped, saw-edged, wrinkled.

Preferred Habitat.- Wet ground, low meadows road sides. Flowering season. July -- September.

This is a very peculiar wild flower and plant; sometimes the stem appears to run through the cemter of one large leaf that is kinky in the middle and taper-pointed at both ends, rather than between two leaves. 0ld-fashioned illness known as" break bone fever" doubtless paralleled to day by the grip- once had its terrors for a patient increased ahundred fold by the certainty he felt of taking nauseous doses of bone set tea, administered by $z$ elous old women outside the " regular practice. Children had to have their noses held before they would - or indeed, could- swallow the decoction This weed was used by the Indians as medicine, and was by them introduced to the white men. It was used by the chippewa Indians $\beta / j \phi$

The Golden Rod Wild flower is by far the most popular of all the Composite Family of wild flowers in Pocahontas County.

This is a handsome wayside plant of the genie (Solidago) Which in late summer or early autumn bears panicles of yellow flowers. One species has white blossoms. Most of the 125 species are native of North America. With the Aster, which bloom at the same time, the Golden Rod makes the last wild showy flower display in many parts of the country, and is so familiar every where that some of the States - Alabama, Kentucky, Nebraska, and North Caroliaahave chosen it for the State Flower; In Europe the Golden Rod is cultivated in gardens . Some species were formerly used for making yellow dye, and were called " Dyers Weeds "
from
Along shady roadsides and in moist woods and thickets, August to October The Blue -stemed, Wreath, or Woodland Golden -rod (S. cresia) sway an unbranched stem with a bluish bloom on it. Then thee flowers transforms whole acres into " fields of the cloth of gold the slender wands swaying by every roadside, and purple Asters add the fiael touch s of beauty and splendor to the Autumn landscape. This wild flower of Pocahontas County is found in both low and high altitudes. especially in mosiows, and pasture e lands.

## Golden Aster

(Chrysopsie amriase)
plower-honds - Composite, yellow, i in wide or lees, a foe corymbed flowers on glandular stalks; each composed of perfect tubular disk florets surrounded by pistilate ray florote; the inwlacre campanulate, ito narrow bract overlapping in several series.

Stem-: Stout, silky, hairy when young, searly goethe later, 1 to $2 f f$ f. tall Leaves ; - Alternate, oblong to spatalate, entire.

Preferred Habitat - Dry anil, or sandy, sell.
Flowering season- August- September.
Whoever comes upon slumps of these handsome flowers by the dusty roadside generic
cannot but be impressed with the appropristnese of their $\mathrm{A}^{\text {nose }}$ (Chryeos $=$ (cold)
This is a beautiful wild flower of Pesaliontas County, but is not as common as other species of the Composite Golden led family.

## (Erigeron annulus )

Flower-heads - Numerous, daisy-like, about $\frac{1}{2}$ in across; from 40 to 70 long, fine, white rays ( or purple or pink tinged) arranged around yellow disk Closets in a rough, hemispheric cup whose bracts overlap. Stem- Erect, 1 to 4 ft high, branching above, with spreading, rough hairs, Leaves:- Thin, lower ones ovate, coarsely toothed, petioled; upper ones sessile, becoming smaller, lance shaped.

Preferred Habitat- : Fields waste land, and roadsides. Flowering Season: - May to No vember.

At a glance one knows this flower to be a kin to Robin, s plantain, the Asters and Dasies, That this wild flower known as Daisy Fleabane, drive away fleas, is believed only by those who have tried it out; when dried and sprinkled in dog kennels, when reduced to a powder, have been known to drive the dogs away. Hence the name fleabane.

Black eyed Susan; Yellow or Ox-eye Daisy; Nigger-heads;
Golden Jerusalem Purple Cone -Flower.
( Rudbockis hirta.)
Flower heads-- From 10 to 20 orange- yellow neutral rays around a conical, dark purplish-brown disk of florets containing bothbstamens and pistil. Stem: - 1 to 3 ft . tall, hairy, rough, usually unbranched, of ten tufted, Leaves:- Oblong to lance-shaped, thick, sparingly notched, rough. Preferred Habitat:- Open sunny places; dry fields. Flowering season- : May -- September.

So very many weeds have come to our Eastern shores from Europa, and marched and marched farther and farther west each year, it is but fair that black-of eyed Susan, a native of western Clover fields, should travel Eastward to the Atlantic in bundles of Hay whenever she gets a chance, to repay Eastern farmers in their own coin. This black eyed Susan is a native of our western years United States; but have become prime favorites of later in European gardens so offering them still another chance to overrun the Old World, to which so much american hay is shipped;

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Thrifty farmers may decry the importation into their mowing lot is, $\phi$ but there is a glory to the cone -flower besides the glitter of gold fades into paltry nothingness.

Any one who has had a jar of these yellow daisies standing on a polished table indoors, and tried to keep its surface free from ring of golden dustaround the flowers, knows how abundant their pollen is. The Black eyed susan, like the English Sparrow has come to Stay in Pocahontas County.
yarrow; Old Man, e Pepper; Nosebleed.
(Achillor Nillofolium)

Flower heads:- Grayish -white, rarely pinkish, in a hard, close, flat-topped compound cluster. Ray florets 4 to 6 , pistillate, fertile; disk florets yellow, afterwards brown, perfect, fertile.
sta:- Erect, from horizontal root-sialk, 1 to $2 f t$ high, leafy, sonotines hairy. Leaves:- Very finely dissected.
Preferred Habitat:- Waste land, dry fields, banks, roadsides, especially in meadows in dry rocky land.

Flowering Season :-- June -- No vember.
Every where in Pocahontas County this commonest of common weeds confronts us; the compact, dusty-looking clusters appearing not by waysides only, around the world, but in the mythology, folk-lore, medicine, and literature of many peoples. as a love charm; as an herbtea brewed by crones to cure divers ailments, from loss of hair to the ague; as an inducement to f $\phi$ nosoblediing for the relief of conjective headache; as an ingredient of an especially intoxicating beer made by Swedes, it is mentioned in old books. Kewafays wo are satisfied merely to admier the feathery masses of lace-like falises consed byyoung plants, toy whiff the wholesome, nutty, autumnal odor of its flowers, or to wonder at tho marvelous scheme it employs to overrun the earth. This yarrow plant at one time was considered a pest to the farmers of Posabontse County, and it was dug up in the meadows; and while the fleer is very beautiful, it is one of the most worthless of all the Conpenise wild flowers of Pocahontas County. It was naturalized from Europe.

Nogs or Foetid Camomile: Mayweed; Pigs-sty Daisy ; Dillweed; Dog-fennel. (Anthems Cotula (Maruta Cotula)

Flower-heads :- Like small dasies, about 1 in. broad; 10 to 18 white notched peutral ray florets around a convex or conical yellow disk, whose florets are fertile containing both stamens and pistil, tubular, 1 to 2 ft . high, leafy with unpleasant odor and acrid taste.

Leaves:- Very finely dissected into slender segments.
Preferred Habitat: Roadsides, dry waste land, sandy fields.
Flowering Season-: June -- No vember.
Dog; used as a prefix by several of the plants folk - names, implies contempt for its worthiness. It is an other species, the GardenCamomile (A nobilis), which furnishes the ap thecary with those flowers whish, when steeped into a bitter, aromatic tea, have been supposed for generations to make a superior tonic and blood purifier.

This Dog-finnel plant mostly in wet sour land, it is a beautiful flow but is a worthless plant.

Common Daisy; Wite weed; Oxeye- Daisy; Marguerite; Love-me; Love-me-Not. (Chrysanthemum Laucanthemum )

Flower -heads- Disk-florets yellow, tubular, 4 or 5 toothed, containijg stamens and pistil; surrounded by white ray florets, which are pistillate, fertile Stem:- Mostly oblong in outline, coursely toothed and divided. Preferred Habitat:- Meadows, Pastures, Roadsides, waste land, grows every where in the open, will not survive in the woods or in the shade of timber. Flowering season :- May - November. Myriads and myriads of dasies, whiten many of the fields of Pocahontas county as if a blizzard had covered them with a snowy mantle in June and fills the farmers with dismay; while the flowers are filled with rapture as they behold their beauty.

At one time the farmers of Pocahontas County, thought that oxeye Davies mas an aweful pest and would ruin their land, and fields of meadows, but later it was conceded that when a field of ox-oye Daisies were plowed under It ans a good soil builder ;

The Ox-eye Daisy is said to be an naturalized immigrant from Europe. It is mong the most conspicuous of flowers.
(Tanacetum vulgare )
Flower-heads- small, round, of tubular florets only, packed within a depresedd involucre, and born in flattopped corymbs.
stem-: $1 \frac{1}{2}$ to 3 ft . tall, leafy.
Leaves: - Deeply and pinnately cleft in narrow, toothed divisions; strong scented. Preferred Habitat:- Roadsides ; commonly escaped from gardens.

Flowering - Season:- July - Septernber
Tansy tea, in short cured every ill that the that hoff flesh is heir to, according to simple faith of many of the early settlers - and fath still surviving in many old women even to this day. In the early settlement it ras believed that to soak Tansy leaves in buttermilk for nine days, and tben applied, it would make the complexion very fair.
so great credence having been given to its medicinal powers in Europe it is not strange the colonists felt they could not live in the New World Without iansy. Strong-scented pungent tufts topped with bright yellow buttonsrunarays from old gardens-are conspicuous feature along many a roadside leading to colonial homesteads. This Tansy plant is Naturalized from surope.

